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REPORT FROM THE ROUND TABLE ON
HUMAN SECURITY AND
WATER-RELATED CONFLICT

Ottawa
April 13, 1999

REPORT FROM THE ROUND TABLE ON HUMAN SECURITY AND WATER CONFLICT

The Canadian Centre for Foreign Policy Development, at the request of the Foreign Affairs Minister, Lloyd Axworthy, organised a round table in Ottawa on April 13, 1999, on Human Security and Water Conflicts. Participants included specialists on water-related issues, engineers, NGOs, conflict resolution experts, IJC experts, students as well as officials from the Department of Foreign Affairs and International Trade, Canadian International Development Agency, and Environment Canada. The round table addressed key water-related issues (water-resources, water-management, water-conflicts) in the broader framework of human security. The following is a report from the day-long discussion.

SUMMARY OF PRESENTATIONS

Following welcoming and introductory remarks by **Steven Lee,** National Director of the Canadian Centre for Foreign Policy Development, **Ralph Daley** of UNU opened the discussion with a brief presentation on the *State of the World's Water*. Professor Daley contended that growing water shortages from uneven distribution, wastage, and pollution coupled with rising water demand due to population growth have contributed to intensifying competition for fresh water resources. (20% of the world's population, concentrated in 30 countries, face water shortages -- a figure that will rise to 30% of the world's population, in 50 countries, by 2025. Meanwhile, water demand is increasing at twice the population growth rate). This competition is reflected in tensions over the purpose of water use (i.e., for household, industrial, or agricultural use), transboundary disputes over water quality and quantity, as well as past and present conflicts/wars.

Growing water scarcity has serious health and ecological implications and endangers the quality of water. If no action is taken to address these issues we may be faced with reduced resilience in human and ecological systems, increasing climate change, water-related diseases, salinisation, water pollution, collapse of aquatic ecosystems and water supplies, mass refugee migrations as well as escalating armed conflict.

Daley estimated the total cost for sanitation and safe water to be $25 billion per year for 10 years. The best ways of dealing with the global water problem, he pointed out, would be through integrated water management (holistic, ecosystem-based, managed at the river basin level, aimed at reconciling the competing water demands with supply) and capacity building (including the social capacity to educate and train; the scientific capacity to monitor and assess the aquatic environment; the institutional capacity to plan, legislate, regulate and achieve compliance; and the economic capacity to provide sustainable services and products).

The next speaker was **Jennifer Moore** from Environment Canada. She spoke about how

Canada could contribute to resolving the global water problems. She pointed out that Canada has a wealth of experience and expertise in water-related issues including: 1) institutional arrangements for shared water management, 2) science/monitoring, and 3) capacity building. Areas that required some policy attention were: building a coherent network of "water players," building international capacity, as well as promoting opportunities for Canadian business and technology transfers.

Moore argued that there is a need to move beyond strategising towards implementing practical and pragmatic solutions. She pointed out that there exists currently room to address water related issues since the key players perceive a clean environment as a necessary condition for human security. There are 44 countries globally with 80% of their total areas within international basins. As well, there are more than 300 internationally shared basins. This situation should contribute to the development of an international cohesive water management strategy aimed at averting conflict.

She also brought up the issue of water export gaining momentum and the mixed record Canada has had in terms of fresh water management. Canada is the 2nd highest per capita user of fresh water in the world. Pollution in Canada continues to remain a threat to human health. Toxic substances and acid rain continue to damage Canadian ecosystems.

Following Jennifer Moore's presentation, **Richard Denham** of RV Anderson Associates addressed *Water Management Issues.* He argued that a water conflict resolution strategy could be conceptualised on a "sustainability continuum" in three categories (attached). Variables include a time horizon and methods of intervention. Positioned at the beginning of the continuum, relief efforts fall into the first category. They entail the provision of short term assistance in response to a sudden disaster and are mostly reactive. Moving along the continuum, the second category includes technical solutions that are capital intensive and rarely result in long term solutions. The last category involves conflict resolution and prevention and is the key to any sustainable solution. It is within this last category that Canada should develop a role as a skilled non-threatening facilitator in water-related disputes. He concluded by saying that the human security aspect can be dealt with only through facilitation efforts.

The next speaker, **Stephen Owen**, Director of the Centre for Dispute Resolution at the University of Victoria, addressed on water-related conflict resolution. At the outset of his presentation he pointed out that not all relationships involving water-sharing are negative and hostile. Any conflict resolution effort should tap the positive elements. Canada may contribute to the world water strategy through its own expertise with water use, land use, as well as by looking at the approach of its own aboriginal peoples to water management. He strongly stressed the necessity of collaboration among involved parties since most water disputes are 1) competing, 2) legitimate, and 3) interdependent. In some cases the range of issues in negotiations must be broadened so that all parties are able to "walk away with something." Decisions must be collective and include the public for any resolution to be sustainable. The up-stream/down-stream dichotomy does not hold since water problems are inter-related (i.e., fish may swim upstream). He further cautioned against the danger of imposing Canadian or western resolution methods on people who would otherwise approach water-related issues and disputes/conflicts

differently and perhaps more successfully. Some good examples of cooperation on water-related issues include the International Joint Commission (IJC).

The last speaker, **Ken Macartney**, Director of the Environmental Relations at DFAIT, pointed out that water-related issues impact all of the three basic pillars of Canadian foreign policy: 1) economic prosperity, 2) peace and security, and 3) Canadian values. In order to be economically prosperous resources have to be protected. Various organisations (IJC) and bilateral as well as international agreements on water sharing are integral to preventing conflict and maintaining peace -- necessary conditions of a prosperous trading system. Protecting the global commons and issues of human security as well as environmental security constitute an important part of the Canadian value system.

Mr. Macartney pointed out Canada could draw on government, NGOs, and other private and institutional support to contribute in international norm setting, offer policy advise on sustainable water management issues as well as conflict prevention. He also drew attention to the challenges of appearing too preachy when assisting countries with water problems that differ vastly in kind and scope. Other question he posed: In which context should global water issues be addressed (i.e., regionally or bilaterally)? How do we achieve coherence, coordination and cooperation in an environment of scarcity?

SYNOPSIS OF THE DISCUSSIONS

The participants addressed the nature of water-related issues. Some raised the point that it is not quite clear how the topic fits within the human security context and therefore some basic definitional clarification is needed. **Until recently water-related issues have been primarily seen through the prism of water-related war/conflict (among states), putting the issues on the top of the human security agenda could prove challenging. This shift in focus should be accompanied by a shift from war/conflict terminology to that reflecting the new preoccupation with individuals and their well being. Redefining the nature of the problem naturally implies a change in strategy, leading to new dilemmas of how to approach water-related issues.** Different strategies have to be devised for different kinds of problems. For instance, the response to an armed conflict over water between states (as well as regions, communities, or nations) will be quite different than a response to a crisis brought about by natural causes or pollution. This reality poses not only conceptual but also institutional challenges. In particular, it requires coherence in foreign policy where development priorities (CIDA) become synonymous with human security preoccupations (DFAIT).

While some argued vehemently for the human security approach to water-related issues, since there is nothing more threatening to human beings than the lack of food, water, and shelter; others pointed out the importance of seeing them in the context of environmental, ecological, and economic security. They argued that the human security approach to water-related issues is flawed since it assumes that water-related problems occur in a vacuum and pointed out the necessity of seeing them as an integral part of a country's (region's)

economic, ecological, and environmental reality. This argument has clear implications on the strategies devised to cope with water-related problems.

The participants collectively raised the following reasons for the world water shortage:

- **uneven distribution**
- **consumerism**
- **wastage** including leakage, theft, and poor accounting
- **inefficient use of fresh water resources** including unsustainable use of underground water
- **pollution**
- growing water demand due to **population growth** (world population will have increased from 5.8 to 8.0 billion by 2025)
  -- increasing urbanisation
  -- increasing agricultural irrigation
  -- increasing food production
- **rising standards of living** (in some parts of the world)

Solutions offered during the discussion were based on how problems were perceived. Some proposed political solutions (i.e., facilitation of conflict), while others addressed problems by looking at global economic inequalities (i.e., western consumerism). Technical solutions were also explored (i.e., methods of exploiting under-utilised sources of fresh water, treating and re-using domestic "grey" water, collection of rain water and moisture from sea fog). Attention was paid to countering the problem of uneven distribution through the movement of water, including water exports, and movement of products that require water in their production (virtual water). The contentious idea that Canada could/should export fresh water was also brought up, raising such dilemmas as "getting the price of water right."

POLICY OPTIONS: CANADIAN-BASED STRATEGY

Some participants raised the point that since Canada has a wealth of experience dealing with its own water-related issues, a Canadian-based strategy could be developed to address global water-related problems. The key resources Canada could draw on in developing such a global strategy include:

- experience and expertise in **institutional arrangements for shared water management** (i.e., Canada-U.S. relations/**International Joint Commission**, the Great Lakes Water Quality Board, Prairie Provinces Water Board)
- experience and expertise in **water management in the context of federalism** (i.e., federal/provincial shared water management practices)
- experience and expertise in **science and monitoring** (i.e., Global environmental Monitoring Systems (GEMS), a worldwide water quality monitoring system based at NWRI in Burlington, RAISON -- decision making for watershed management, Canadian Water Quality Guidelines, ecological monitoring and assessment, risk and environmental

impact assessment, pollution control and management of toxic substances, database management, hydrolic applications, environmental decisions support systems)

- experience and expertise in **capacity building** (i.e., application of river basin management, ecosystem and community-based approaches, education, technology transfer -- especially low cost technology to developing world)
- The **involvement of civil society** in water-related policy was also raised as an important component of any strategy, especially by Stephen Owen, University of Victoria.
- The need to bring together the major players for better **collaboration in order to build coherent international capacity** was voiced. The problem of coherence was also raised in relation to NGOs, international organisations dealing with water-related problems as well as the Canadian government itself (CIDA, DFAIT).
- Canada could lead the necessary **move from strategising to implementing concrete practical solutions**. Many participants pointed out that despite a myriad of meetings and conferences aimed at alleviating water-related problems, little has been done to actually implement the ideas they have generated. Others addressed the general ineffectiveness of formal agreements and protocols and suggested new practical ways of approaching water-related issues have to be found.
- Canada could play a role of a **skilled "neutral" facilitator to water-related disputes and conflict.**

CONCLUSION

The idea that Canada is in a unique position to pursue a global strategy for water was reaffirmed by Ralph Daley and others. He said that given the good reputation Canada has in the world there is room for developing a **Canadian foreign policy niche in water-related issues**. Canada could, for example, produce the annual World Report on Water.

Steven Lee pointed out that many of the strategies suggested in the discussions reflect the soft power approach to foreign policy advanced by Minister Axworthy. Through the contributions of Canadians in science and monitoring, technology, capacity building, use and sharing of institutional models as well as coordination to help develop a cohesive international water management network Canada has a unique opportunity to impact positively a world water strategy.

In order to pursue these options, there is a need for commitment by the Canadian government as well as civil society sectors and the international community. Before a Canadian-based strategy for water is developed some key and difficult questions have to be answered. Among them are, for example: Should Canada get involved and why? Does Canada have sufficient resources to pursue such a strategy? What are our ultimate goals and expectations?

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Human Security and Water Conflict

Invited Participants

Richard Ballhorn
Director General
International Environmental Affairs
Department of Foreign Affairs and
International Trade

Dr. Pierre Béland
St. Lawrence National Institute of
Ecotoxicology and (former commissioner)
International Joint Commission

Nicholas Borsinger
Advisor to the Secretary General
Canadian Red Cross

Nicole Bosley
Executive Director
WaterCan

Tony Breuer
Executive Director
Partners in Rural Development

Prof. Mike Brklacich
Department of Geography
Carleton University

David Brooks
International Development Research
Centre

Susan Brown
Chief, Peacebuilding Unit
Multilateral Programs Branch
Canadian International Development
Agency

Mr. Charles Caccia, M.P.
Member of Parliament

Paul Chambers
Canadian International Development
Agency

Ralph Daley
UNU/IWEH
McMaster University

Richard Denham
RV Anderson Associates Ltd.
Consulting Engineers

Andrew Hamilton
Head, Science Division
Commission for Environmental
Cooperation

John Henderson
Spider International

Christine Hogan
Director International Relations
Environment Canada

Eric Hoskins
Policy Advisor
Lloyd Axworthy Minister of Foreign
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Environmental Relations
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Canadian International Development
Agency

Jennifer Moore
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Environment Canada

Stephen Owen, QC
Professor of Law and Public Policy
and Director Centre for Dispute Resolution
University of Victoria

Ebyan Salah
Som-Can Institute

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Kathy Vandergrift
World Vision

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April 1999

Dear Friends,

At the request of Foreign Affairs Minister Lloyd Axworthy, we are working with John Hannigan, Magda Opalski and others to bring together a diverse group of Canadians to address water conflicts as a global Human Security issue and to assess Canada's experience, expertise and leadership in water problems. I am pleased you can participae in this policy development roundtable to be held on Tuesday April 13, 1999 at room 214 Wellington Building, 180 Wellington St. (House of Commons), Ottawa, Ontario from 9:00 a.m. to 3:00 p.m.

Canadian experts have been invited to make short presentations to help generate a full discussion of issues and needs. The agenda, including invited presenters and the list of participants is attached. As you may know, Human Security has become a key theme and central objective of Canadian foreign policy. Promoting Human Security by addressing water-resource, water-management and water-conflicts could be a key element in Canada's interests abroad. Our roundtable provides an opportunity to assess Canadian interest, experience and expertise in water as we continue to develop Canada's Human Security approach to foreign policy. I look forward to seeing you on April 13.

Sincerely,

Steve Lee
National Director

cc. Hoskins / Minister Axworthy
Robinson / CIDA
MHS
MPH

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AGENDA

Roundtable on Human Security and Water-Related Conflict

April 13, 1999

Goals: To assess the impact of water scarcity and conflicts over water on human security.

9:00 a.m.- 9:15 a.m. Welcoming remarks:

Chair: Steve Lee	National Director - Canadian Centre for Foreign Policy Development
Eric Hoskins	Policy Advisor - Office of the Minister of Foreign Affairs

9:15 a.m. - 9:30 a.m. Roundtable Introductions

PART 1

9:30 a.m. - 9:45 a.m. Opening Presentation - State of the World's Water
Ralph Daley - UNU/IWEH McMaster University

9:45 a.m. - 10:15 a.m. Discussion

10:15 a.m. - 10:30 a.m. Canadian Experiences and Expertise
Jennifer Moore - Director General - Eco Systems and Environmental Resources - Environment Canada

10:30 a.m. - 10:45 a.m. Nutrition Break

10:45 a.m. - 11:00 a.m. Water Management
Richard Denham - RV Anderson Associates Ltd. Consulting Engineers

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11:00 a.m. - 11:15 a.m.	Conflict Resolution Stephen Owen QC - Director - Centre for Dispute Resolution University of Victoria
11:15a.m. - 12:15 p.m.	Discussion
12:15 p.m. - 1:00 p.m.	Lunch

PART 2

1:00 p.m. - 1:15 p.m.	Assessing Scarcity and Possible Coflicts Ken Macartney - Director - Environmental Relations Department of Foreign Affairs and Internaitional Trade
1:15 p.m. - 2:00 p.m.	Discussion
2:00 p.m. - 3:00 p.m.	Thinking Ahead, Canada's Human Security Agenda and Water Next Steps

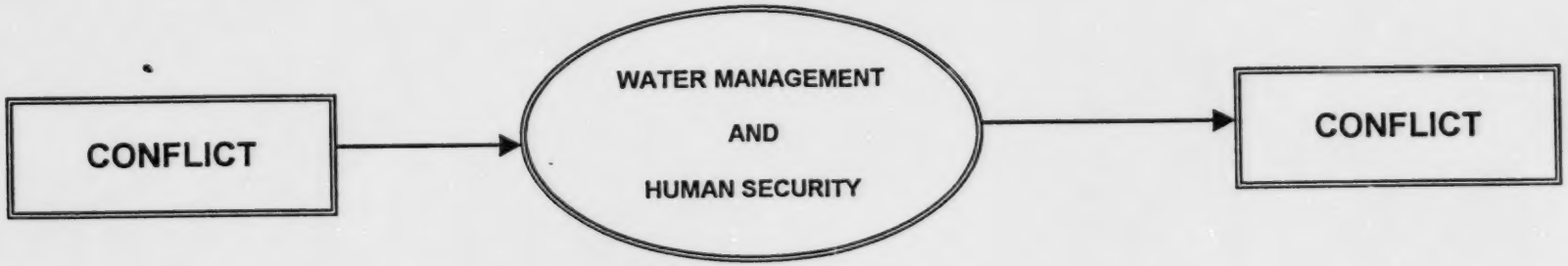
Event Organizers:

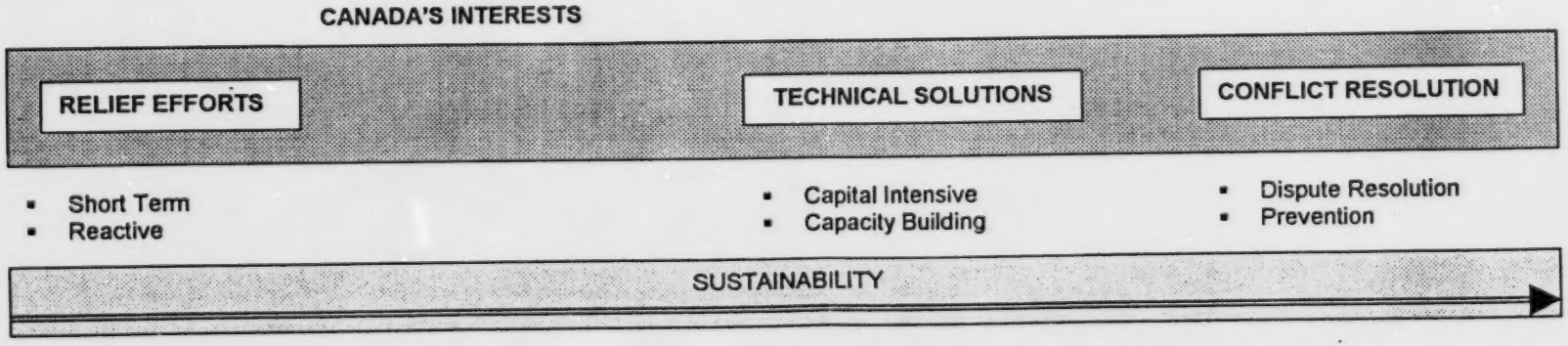
John Hannigan - Consultant
Penny Kerrigan - CCFPD
Dr. Magda Opalski - Forum Eastern Europe

Rapporteurs:

Marketa Geisler - CCFPD
John Hannigan - Consultant

HUMAN SECURITY AND WATER RELATED CONFLICT





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THE OTTAWA CITIZEN WEDNESDAY, APRIL 14, 1999

Global water plan far from developed

Experts agree there is a dangerous shortage, but solutions are hard to come by

BY TOM SPEARS

Despite many conferences over many years, experts still don't know how to solve global water shortages that are killing people and may some day start wars.

There are 150 international conferences scheduled for the coming year alone, leading up to a major summit in The Hague on solving the world's water problems.

Everyone sees the problems, experts agreed yesterday at an Ottawa roundtable on the issue.

But solutions? Those are tougher.

"What's going to come out of The Hague meeting in a year will be yet another cry for action," said Richard Daley, a Canadian professor at United Nations University.

"We've got principles and statements galore," said Jim McCuaig of the Canadian International Development Agency (CIDA). But somehow delegates to The Hague will need to get "some political buy-in at a global level."

"There's a bit of a disconnect between the strategizing and the solutions themselves," said Jennifer Moore, director general of ecosystems and environmental resources at Environment Canada.

"We need some sort of an international water strategy."

However, don't count on international agreements to solve everything, warned MP and former environment minister Charles Caccia.

"When one is signed we all congratulate ourselves and go home and do nothing," he said. "We achieve actually very little. We achieve the lowest common denominator that the participants are willing to sign."

The water problem, Mr. Daley said, is "chilling" and getting worse as Earth's population grows. Some of the points Mr. Daley made include:

- Twenty per cent of the world's people face water shortages today. In many cases, women and children have to walk long distances to carry water, which prevents them from doing much else.

The United Nations estimates 5.3 million people die each year because of bad water.

- "Trans-boundary disputes over quality and quantity (of water) are proliferating," and seem likely some day to cause war.
- Since 1900 the world's consumption of fresh water has grown 10 times faster, largely because of more intensive agriculture.
- Pollution often makes the only water within a population's reach unfit to drink.

"The relationship between water and human health has a dismal record globally," Mr. Daley said. "Contaminated water causes 80 per cent of the disease in the developing world."

The one-day discussion, hosted by the Canadian Centre for Foreign Policy Development, gathered ideas about water's role in world security. The centre is a think-tank established by the department of Foreign Affairs.

Several speakers said Canada is well-positioned to be a world leader in solving the problems.

"We have a credibility (and) a neutrality that is greatly treasured by developing nations," Mr. Daley said.

And officials from Environment Canada said this country is recognized for being good at taking care of its water. It can help other countries do the same, they said.

"We have, as Canadians, an important capacity to help the world on water questions," said Steve Lee, who chaired the round-table forum. "We have experience, we have institutions, we have scientific knowledge, we have models of conflict resolution, and a natural cultural inclination to help the world."

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THE CHRISTIAN SCIENCE MONITOR

Stirring up ideas on water woes

OTTAWA – An all-day discussion on water issues held here recently was a good example, in format and content, of the work of the Canadian Centre for Foreign Policy Development.

Some three dozen men and women from academia, aid organizations, and business, as well as government, gathered to consider water as a global "human security" issue. In other words: Will war break out over water, and if so, where?

The group concluded that, although the world water situation is dire, no shooting war was imminent. Tensions over water in various parts of the world could, however, afford Canadians an opportunity to be useful in conflict resolution.

One consultant's plan: teams that parachute into tense spots and mediate in water disputes.

Water is something that Canadians, with 20 percent of the world's freshwater resources, feel they know something about. Water is also typical of the "new" foreign-policy issues facing governments nowadays.

There's no shortage of international conferences on water, but there's "no place to put the hooks in" either, as Jim McCuaig of the Canadian International Development Association put it.

Ralph Daley, of McMaster University in Hamilton, Ontario, said, "I still think the issue is, Who is doing what in concrete terms? Canada has unique experience. I think Canada could occupy a niche that hasn't been recognized – could offer concrete leadership."

There was no shortage of grim statistics. Some 20 percent of the world's population lacks safe drinking water; global water use is growing at twice the rate of population increase; half the world's population lacks adequate sanitation. But the group didn't buy the idea that water disputes, especially in the Middle East and Central Asia, were likely to trigger war. "We've got to be careful not to be distracted by a false problem," as one participant put it.

Moreover, they said, inexpensive, low-tech solutions exist for many water problems. Richard Denham, a water-issues consultant, suggested that Canada develop a cadre of skilled facilitators to parachute into trouble spots to mediate water disputes. "I think we should pick some pilot projects and get some successes."

– Ruth Walker

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